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Contour Strip Cropping

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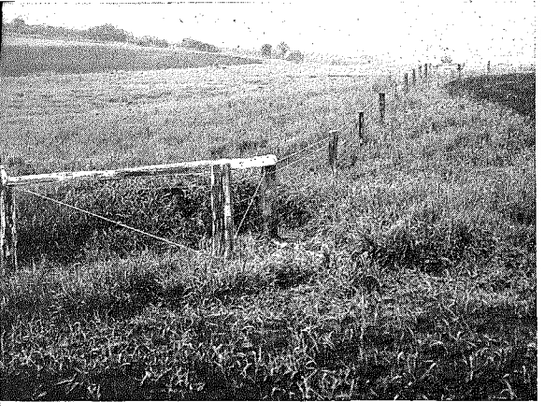
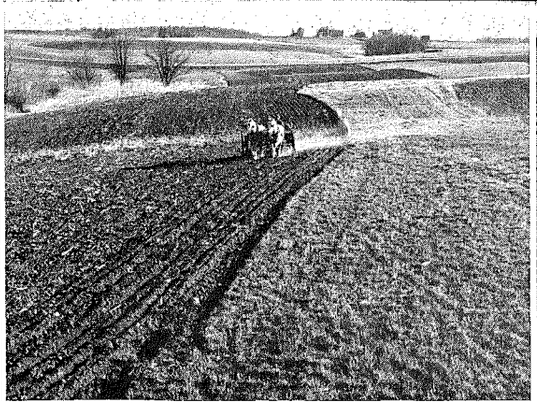
Soil Conservation Program

1. Classify your land and plan the best use.
2. Use crop rotations with legumes and grasses.
3. Use contour strip cropping on uniform slopes.
4. Use contour tillage to check runoff.
5. Use barnyard manure and all crop residues to maintain organic matter content.
6. Apply phosphate and other fertilizers where field trials indicate the need.
7. Build grassed waterways to dispose of surplus water.
8. Terrace where needed to shorten long slopes.
9. Maintain and improve your permanent pasture by renovation and grazing management.
10. Protect large gully heads and streambanks.
11. Protect woodland from fire and grazing to assure continuous production.
12. Protect wildlife. Good cropping practices, better pasture, and proper woodland management are beneficial to wildlife.



Fences May Serve as a Guide Line for Contour Strips (Step 1)



Contour Strips Are Often Established by Plowing Out a Hayfield (Step 4)

Drill Corn on Contour So Cultivation Will Be on Level (Step 5)

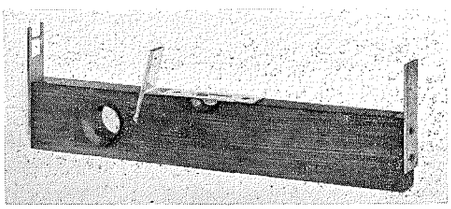
Five Steps in Establishing Contour Strip Cropping

1. Classify Your Land

Determine what land on your farm is suitable for cropping and what land should be left for pasture and wood lot. Then select a crop rotation to suit your land and farming system. Plan your contour strips to fit the rotation. Separate your crop land from pasture land with a contour fence. This will serve as a guide line for contour strips.

2. Lay Out Contour Lines

Two men with a hand level can easily lay out contour lines. If both men are the same height, the man with the level sights at the target man's eyes. If they are not the same height, the man with the level should sight at the target man's hat, tie, or other object which is even with the level man's eyes. When taking sights, both men must stand at attention.



This Home-made Level Consists of a 25-cent Level, a Small Mirror to Reflect the Bubble, and a Piece of Metal at Each End for Sighting.

The target man moves ahead 100 feet and the level man motions him to move up or down hill until he is standing on the same level. After driving in a stake at the spot where he took the first sight, the level man moves on 100 feet beyond the target man. Then he stops and sights back to locate his own position on the same level. They continue this way the length of the field. By shuttling back and forth errors in sighting or errors due to inaccuracy in the level used are minimized. Stakes are usually set 100 feet apart except on sharp turns where more stakes may be necessary in order to give a smooth, workable curve.

3. Lay Out Contour Strips

1. Determine width of contour strips. Take soil, slope, and degree of erosion into consideration.

Amount of Slope	Width of Strips		
	Good Soil	Fair	Poor Soil
per cent	feet	feet	feet
4-10	125	100	75
10-15	100	75	60
15-20	60	60	60

If field is severely eroded lay out strips 15 feet narrower than listed except for slopes of 15 to 20 per cent which should be seeded to permanent hay or pasture.

2. Locate first contour line far enough down the slope to leave one strip above it. This strip should be below the contour pasture fence if the field is in a valley or below the ridge if the field is on ridge land.
3. Lay out a second strip below the contour line and then check the lower side to see how far it is off the contour.
4. If the lower side of the second strip is not off more than 2 per cent for a distance of 50 feet or less, lay out a third strip and again check lower side.
5. Whenever the lower side is too far off the contour, run a new contour line far enough below so that an even-width strip can be laid out above it and a correction strip can be left between the new even strip and the last even-width strip above.
6. As soon as one side of the strip is definitely located, back furrow on the stake line marking the boundary. This prevents confusion with the next stake line.
7. Leave the back furrows as a guide to strip boundaries.

4. Establish Strips

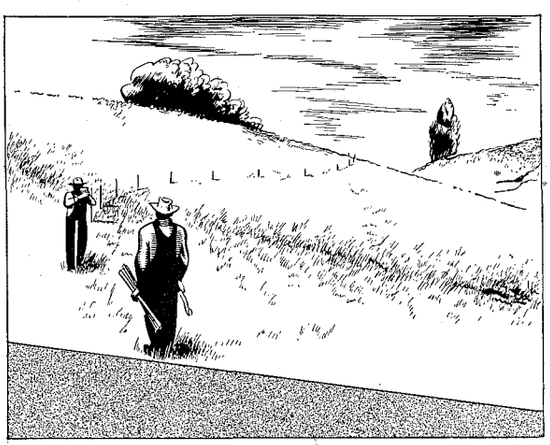
Establish contour strips by plowing out on a hayfield or by seeding every other strip to a legume and grass mixture. This may be done gradually by seeding a new strip every year.

5. Cultivate on the Contour

Perform all tillage operations as nearly as possible on the level or contour.

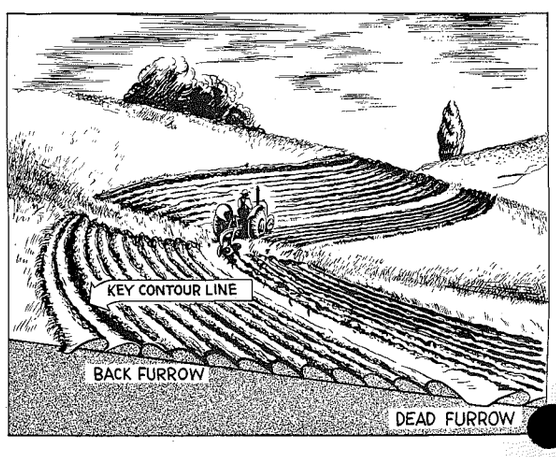
Drill corn on the contour so cultivation will be on the level. Horses like to pull on the level because it is easier and they get fewer collar sores.

Contour tillage is also easier on the tractor fuel as well as the tractor.



LEFT: Two Men Laying Out Contour Lines. They Have Worked Back and Forth Shuttle Fashion Across the Field.

RIGHT: Plowing Out the Contour Strip. The Back Furrow Was Used as the Key Contour Line.



Other Free Publications . . .

The following are other publications issued by the Agricultural Extension Service to help you conserve your soil and pastures. They may be obtained from your county agent or from the Bulletin Room, University Farm, St. Paul 1.

FOLDER 107—GRASSED WATERWAYS—This folder tells the why, when, where, and how of grassed waterways with pictures to illustrate each point.

FOLDER 115 — PASTURE RENOVATION—11 steps for renovating bluegrass pasture are given in this colored, well-illustrated folder.

FOLDER 131—SOILS OF MINNESOTA—A colored map locates the 18 soil groups. A brief description of the soil and type of farming in each group is included.

FOLDER 137—LIMING SOILS IN MINNESOTA—Lime-deficient areas are shown and rates and method of application are given.

FOLDER 141—CHOOSING DRAIN TILE—This folder describes the differences between clay and concrete tile and gives recommendations for their use.

BULLETIN 235—WIND EROSION CONTROL—This well-illustrated bulletin points out six different ways of controlling wind erosion.

BULLETIN 241—WELL-MANAGED PASTURES—Recommendations for a good pasture program, mixtures, and management are given.

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